

MOVING INTO THE FUTURE WITH MUVEs

BY CATHERINE IMPERATORE

Among education professionals, it's easy to find enthusiasm for multi-user virtual environments (MUVEs), more commonly known as virtual worlds. It's just as easy to find those who perceive virtual worlds as a fad with little practical use. While it's true that virtual worlds are not appropriate to every educational setting, when used well MUVEs are "not just engaging, but provide a space for higher level collaboration, simulation, testing of hypotheses, interaction, creativity and performance." This quote from Becta, the U.K. government agency that promotes learning through technology, outlines the strengths of the virtual world learning experience. This article will look at two uses of MUVEs: career exploration and the virtual classroom. What is a virtual world? Per Wikipedia, it is a computer-based simulated environment where users interact with each other in the form of avatars, which are typically two- or three-dimensional representations that walk, run and sometimes fly across the virtual environment. A MUVE is not to be confused with a game—although games play a large role in some virtual worlds, the virtual world experience does not end with victory or defeat. Avatars perform many activities that we do in real life: eating, sleeping, shopping, hanging out and even attending class.

Career Exploration

With about 4.2 million citizens, Whyville is a thriving world for 8- to 15-year-olds that is focused on education through games. After successfully completing games, citizens earn currency, or clams, which they use to purchase cars and other items. When not playing games, citizens spend time at the beach or the park. They also chat with each other, with the benefit of security tools such as filters for inappropriate language. In Texas's Waco Independent School District (ISD), seventh- and eighth-graders are using Whyville in their career exploration curriculum. The students visit sites in Whyville such as the Bioplex, where they meet a virtual virologist and play games to match antibodies with viruses. If the students are interested

school to careers from the career clusters they will encounter in high school, at which point they will have opportunities to earn dual credit and reach their goals faster.

"Gaining interest among Texas students early in targeted high-skill, high-demand careers is key to reducing the projected shortages in advanced manufacturing and biotechnology industries, and will ultimately boost Texas's future workforce and economy," says Doug Ridge, TWC director of employer initiatives. TWC's Kaki Leyens adds, "Experiential learning activities don't reach students at nearly the capacity level we need to fulfill projected employment demand in our core industries. Whyville is a sustainable and growing presence that responds

of 2008 began offering a certificate in digital media delivered primarily through Second Life. In January, TSTC added an associate degree in digital media to the program.

Chris Gibson, associate vice president of educational technology for TSTC-West Texas, explains that the environment helps support digital media concepts. However, he anticipates that other courses can also be conducted in a MUVE, including an emergency medical services program that will be introduced this fall. The virtual world environment "gives us the opportunity to combine the flexibility of online classes with the effectiveness of face-to-face classes," Gibson says. Settings in the TSTC Second Life campus, known as vTSTC, include a traditional classroom

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in learning about further education and a career in biotechnology, Whyville shows them opportunities in their geographical area.

The Bioplex is one of the Whyville facilities sponsored by the Texas Workforce Commission (TWC) to interest students in careers important to the Texan economy and included in the Texas career clusters. TWC also sponsors the PlaneWorks aircraft manufacturing facility and accompanying games. Aviation is a major career field in Waco, says Donna McKethan, Waco ISD director of career and technology education, and accordingly PlaneWorks is one of the Whyville sites where the Waco careers course focuses its efforts. McKethan notes that students benefit from being exposed in middle

to [that]." And as you might expect, student interest in the careers course has increased since Whyville was integrated into the curriculum, McKethan shares.

The Virtual Classroom

Second Life is the colossus of virtual worlds. Users in this graphically sophisticated environment for adults take part in simulated real-life activities such as purchasing land and building a home, attending a concert, meeting friends and dining out. Teen Second Life is a similar world for 13- to 17-year-olds. There is a large presence of education institutions in Second Life—more than 170 listed on the SimTeach wiki, as of March 2009. One such institution is Texas State Technical College (TSTC), which in the fall

to help new students get comfortable as well as more innovative learning spaces designed by students, a teacher's lounge and various simulation environments.

Gibson notes that virtual world simulations reinforce real-world skills and experiences. For example, while learning the fundamentals of photography, digital media students can view a simulation of light traveling through a camera. Gibson offers another example from the medical field: students practicing on a simulation defibrillator before getting their hands on the real version. vTSTC offers other immersive experiences such as a business etiquette dinner enhanced with virtual world interactivity: when students click on the salt and pepper shakers, for instance, a note pops up to inform them that these

items should be passed together. "They get to actually hear it [from the presenter], then they can see it, and it's an asynchronous tool—the students can come back and go back through those same learning outcomes again," Gibson explains. It was student interest in virtual world learning that led TSTC to deliver courses via Second Life, and the response has been

positive from the 11 students enrolled this spring, Gibson says.

The Future of Education?

Until recently, the growth of virtual worlds was assumed. In April 2007, Gartner, an information technology research and advisory company, forecasted that 80 percent of active Internet users and For-

tune 500 companies would be involved in virtual worlds by 2011. But the hype seems to be dying down, as is investment in virtual world enterprises, according to Virtual Worlds Management. One MUVE sector that is still relatively thriving is the youth sector, and online learning in general is on the rise, as indicated by research from the Sloan Consortium of organizations committed to quality online education. Gibson predicts that virtual worlds are the next generation of online learning and that industry training opportunities will be a major area of MUVE growth. McKethan also foresees an increase in opportunities for students to practice skills through trial and error in a virtual setting.

Without a crystal ball, we can't know for sure the part MUVEs will play in education in the future. But as online learning expands, MUVEs will surely have a role. **T**

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Further Resources:

Whyville—www.whyville.net

Second Life—www.secondlife.com

vTSTC—<http://v.tstc.edu>

"13 Tips for Virtual World Teaching"—
<http://campustechnology.com/Articles/2008/01/13-Tips-for-Virtual-World-Teaching.aspx>

Whyville is the site of the "My Future" career pavilion, brought to you by ACTE and Whyville creator Numedeon. Companies, industries and CTSOs can rent a Career Station branded with their materials and participate in a career exploration game. To learn more, contact Catherine Imperatore at cimperatore@acteonline.org.

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